

**REMARKS**

In response to Examiner's objections to the Abstract, Applicants have herein deleted the existing Abstract and submitted a new Abstract. Support for the information in the new Abstract can be found in the Specification and Claims of the instant patent application, as it was originally filed. Applicants submit that no new matter is being added with the new Abstract; accordingly Applicants respectfully request that this Amendment be entered.

Claims 1-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Saniford et al. (U.S. 3,851,151) in view of Azok (U.S. 5,352,277). Hereinafter these two patents will be referred to as "Saniford" and "Azok" respectively.

Applicants respectfully traverse this rejection on the grounds that neither Saniford or Azok teach or disclose or claim the instant claimed invention; that there is no suggestion in these two references, or in any other reference that Applicants are aware of to combine Saniford and Azok to teach or disclose the instant claimed invention and even if Saniford and Azok are improperly combined, they still do not teach or disclose the instant claimed invention.

The instant claimed invention is a method of tracing drains in a building comprising:

- (1) surveying the building to locate all existing drains;
- (2) numbering all of the existing drains;
- (3) creating a Master Blueprint and a Master Spreadsheet showing all of the drains;
- (4) using a tracer to determine whether the storm water from the building actually flows from each storm drain to the storm water manhole and recording the information determined about

the flow pattern of each storm drain tested on the Master Blueprint and on the Master Spreadsheet;

- (5) selecting the test location to withdraw the sample of water, wherein said test location is selected from the group consisting of all storm manholes and all sanitary manholes;
- (6) running water continuously through a drain that drains into the test location manhole selected in Step (5);
- (7) selecting a target sanitary drain and adding an amount of non-toxic fluorescent tracer to the target sanitary drain, wherein the amount of non-toxic fluorescent tracer added is such that the fluorescent signal of non-toxic fluorescent tracer is detectable over the background fluorescence of the water in said sanitary drain;
- (8) using a fluorometer to detect the fluorescent signal of said non-toxic fluorescent tracer in the sample of water withdrawn at the test location selected in Step (5);
- (9) using the fluorescent signal to determine whether the target sanitary drain is draining to the test location selected in Step (5) and recording the information determined about the flow pattern of said target sanitary drain on the Master Blueprint and on the Master Spreadsheet;
- (10) repeating Steps (4), (5), (6), (7), (8) and (9) as necessary such that all sanitary drains are traced; and
- (11) using the information from the Master Blueprint and Master Spreadsheet to determine where all sanitary drains and storm drains are draining.

Applicants respectfully state that the instant claimed invention is not simply a method of tracing drains using techniques that are well known in the art or that can be modified slightly from existing methods to teach or suggest the instant claimed invention. Applicants have invented a new

and nonobvious way of tracing drains which provides for a comprehensive understanding of where the storm and sanitary drains in a building are actually draining, as compared to where they are supposed to be draining. Furthermore, Applicants have invented a method where the useful information obtained in practicing the instant claimed invention is placed in a Master Blueprint and Master Spreadsheet and from there the information can be and is used to direct any identified required repair work for the building (such as replumbing a drain so that it drains to where it is supposed to drain, instead of draining to where it has actually been found to drain). Further to the point, to the best of Applicants' knowledge, non-toxic fluorescent tracers, capable of being detected in water by using a *fluorometer*, rather than by using the color of the tracer to visibly locate the tracer in the water, have not been used to trace drains throughout a building in the manner indicated in the instant claimed patent application.

In contrast to the new and nonobvious method of the instant claimed invention, Saniford discusses tracing the flow of water through a subterranean formation, not through a building's storm and sanitary drainage system. Even though Saniford does briefly suggest that his invention could possibly be used to trace the origin of water from any source, Saniford does not provide enough information to enable a person of ordinary skill in the art to trace a pipeline and sewer network . In further contrast to the method of the instant claimed invention, Saniford does not use a fluorescent tracer, rather Saniford uses a "water-soluble substituted poly(hydroxyalkyl) bis (triazinylamino)stilbene" tracer which is detected by first exposing a sample of the water to an ultraviolet light causing the material to luminesce visibly. This visible luminescence is in line with standard "visible dye" tracing techniques which are well known in the art. In contrast to Saniford the instant claimed invention uses a fluorescent tracer, which does not require an operator to make a

visible evaluation as to whether the fluorescent tracer is present in the water sample. The advantages of using a fluorescent tracer over a visible tracer are many. They include, less dependence upon Operator interpretation of data, no requirement that samples be accessed visibly and in a related vein, less chance for Operator safety to be compromised because the operator is not required to position themselves in a dangerous position so as to be capable of "looking" for a colored tracer in a stream of water. For support of this statement, please see the specification, page 5, lines 27-30 and page 6, lines 1-3:

"The currently known visible dyes, other types of dyes and radioactive tracer materials require either visible review of the material in the drain, leading to labor-intensive and sometimes dangerous positioning of workers in difficult-to-reach locations (such as being face down in the middle of a street looking into a manhole with a flashlight) in order to look for visible dye, or the use of analytical devices, or the use of radioactive materials and Geiger counters, which are not always desirable to use around people and animals."

In conclusion, Saniford cannot be used to render the instant claimed invention obvious because Saniford does not discuss and provide solutions to the unique problems associated with determining the flow pattern of both storm and sanitary drains in an existing building.

Aztok teaches and claims a process for tracing liquid flow, comprising providing a dye-impregnated paper strip, putting the paper strip in water, having the colored tracing dye diffuse out of the paper strip into the water and then visually observing the flow of colored liquid within the vessel containing the water. The analysis of Aztok is similar to that of Saniford in that one of the many reasons that Aztok cannot be used to render the instant claimed invention obvious is that Aztok provides a tracer material which requires a visual analytical method. Furthermore, Aztok cannot be used to render the instant claimed invention obvious because Aztok does not discuss and

provide solutions to the unique problems associated with determining the flow pattern of both storm and sanitary drains in an existing building.

The Saniford and Aztok patents are both in different search classification (Saniford in 250/259 and Aztok in 8/506); therefore they are viewed by the USPTO as belonging to two separate areas of technology. Therefore, there is no suggestion in these two references to combine their teachings to teach or disclose the instant claimed invention.

Even if these references were improperly combined, they still do not teach or suggest the instant claimed invention because there is no teaching in either reference separately or in both references when combined that suggests a method of tracing drains that provides solutions to the unique problems associated with determining the flow pattern of both storm and sanitary drains in an existing building.

Based on the above analysis, Applicants do not believe that any of the cited references can be used to render the instant claimed invention unpatentable.

Accordingly, Applicants respectfully request withdrawal of this rejection and that a Notice of Allowance be sent for all pending claims.

**CONCLUSION**

Applicant submits that based on the above Amendments and Remarks that pending claims 1-22 are in condition for allowance and courteously requests that a Notice of Allowance be sent.

Respectfully Submitted,

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